

REMARKS

Reconsideration and allowance of this application are respectfully requested in view of the above amendment and the discussion below.

Applicants' invention concern solar stills for producing distilled water. The stills are inclined to the horizontally at an angle so that water flows through them. The stills include a black absorbing member forming a plurality of individual cells with the water flowing down the stills from one side to the next.

One of the problems with these types of stills is distortion caused by heating and cooling of the stills wherein the relative expansion of the black plastic absorbent panel and the surrounding metal frame, which is at a lower temperature causes distortion in the panel. The black plastic absorbent panel has a plurality of individual cells, through which the water flows from top to bottom. Applicants' invention eliminates thermal distortion, which still occurs with these pluralities of cells by providing each cell with either a dome or a depression in the bottom of the cell. The movements up or down of the dome or the depression takes care of or absorbs the thermal distortion. This movement in each cell thereby virtually eliminates the dimensional distortion of the panel itself and therefore to the outer periphery of the panel.

Claims 6-8 have been rejected under 35 U.S.C. 112, second paragraph, for the reasons indicated at the bottom of page 2 and at the top of page 3. In response to this rejection Applicants have cancelled claims 6-8 and have provided new claims

13-17 which meet the requirements of 35 U.S.C. 112, taken into account the Examiner's indications at pages 2 and 3.

Claims 6-8 have also been rejected under 35 U.S.C. 103 as being unpatentable over any one of the references to Stark U.S. Patent No. 4,487,659, Stark et al. U.S. Patent No. 4,312,709 or Woodruff U.S. Patent No. 5,628,879 in view of Kaufman U.S. Patent No. 4,530,348. The secondary reference to Kaufman has been cited for showing an absorbing member to be combined with any one of the main references.

Applicants' respectfully traverse this rejection on the grounds that independent claim 13 provides a structure, which as a whole, is not disclosed or made obvious by the references.

The reference to Stark et al. '709 provides a disclosure of various devices using lenses to direct sun rays to heat a fluid either to provide that heating fluid or to cause evaporative distillation of water. Figure 24 of Stark et al. shows the sun rays focused directly on water in a flexible bag. It is not seen how such a teaching can be applied to the claimed invention defined by independent claim 13, as discussed above.

Figures 25-27 of Stark et al. describe the sun rays focused on the containers having water to be heated and distilled. These are open at the top and again do not indicate how a black absorbing member or any disclosure of Kaufman could be applied to such apparatus of Figures 25 to 27.

The reference to Stark '659 describe a distillation apparatus in which water flows over a panel having a series of undulations extending across the width of the apparatus. The upper surface can be black and insulation is provided underneath the panel. It is not obvious to incorporate the domed absorbers of Kaufman to the panel of Stark.

The reference to Woodruff '879 describe a tilted tray still having two different embodiments with a respective black wick matting in the bottom of the cell to absorb the water and a plurality of trays extending across the width of the still with the water flowing from one tray to the next. Thus, it is not obvious how a dome absorber of Kaufman could be combined with the reference to Woodruff to provide the present invention.

The secondary reference to Kaufman has been cited as disclosing all features of the absorbing member with reference being made to columns 1-6. Applicants wish to point out that the presently claimed invention, as defined by independent claim 13, is directed to a tilted tray type still to produce distilled water whereas Kaufman is a solar unit to heat water for household use. Furthermore, Kaufman discusses the materials having different value of coefficient expansion but there is no description concerning the elimination of distortion of cells of the absorber panel. Thus, it is submitted that Kaufman does not disclose the features of the claimed invention defined by independent claim 1 whether alone or combined with the primary references in any manner, which would be obvious to one skilled in the art.

To briefly reiterate, independent claim 13 provides for a still including a base and upstanding sidewalls and a solar absorbing member supported by the base with the sidewalls supporting a glass covered position over the absorbing member on which vapor condense. The solar absorbing member includes a panel of black material having a plurality of individual cells on which the water flows and a thermal expansion member including either a dome or a recess formed in the bottom of each cell in order to eliminate or prevent distortion of the absorbing member.

There is no such showing in the references of this feature of the present invention and no combination which would obvious to one of ordinary skill in the art would lead to the present invention defined by independent claim 13.

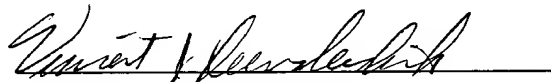
Therefore, Applicants' respectfully request that this application, containing independent claim 13 and dependent claims 14-17, which contain all the limitations of independent claim 13, be allowed and passed to issue.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #011040.49082).

Respectfully submitted,

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